

Preface

It gives us immense pleasure to present the proceedings of the 6th International Conference on Recent Advances in Mechanical Engineering and Nanomaterials (ICRAMEN 2026), held during April 30 – May 2, 2026, at St. John College of Engineering and Management, Palghar, Maharashtra, India. The conference was organized by the Department of Mechanical and Civil Engineering, St. John College of Engineering and Management, Palghar, in association with the Research Association of Masters in Engineering (RAME), India.

ICRAMEN 2026 was conceived as an international platform to bring together academicians, researchers, scientists, industry professionals, and students to exchange innovative ideas, recent research findings, and practical experiences in the broad domains of Mechanical Engineering, Nanomaterials, Civil Engineering, and interdisciplinary areas of Science and Engineering. The conference provided an excellent opportunity for participants from across the globe to discuss emerging technologies, sustainable engineering solutions, and future research directions.

The technical program of ICRAMEN 2026 encompassed six major tracks reflecting the latest developments in engineering and technology. These included Recent Trends in Production and Manufacturing Processes, focusing on advanced manufacturing techniques, automation, and smart production systems; Recent Trends in Solid Mechanics and Modeling, covering structural analysis, computational mechanics, and simulation methodologies; Recent Trends in Thermal and Fluid Science, highlighting innovations in heat transfer, fluid dynamics, and energy systems; Recent Trends in Material Science and Engineering, addressing the development and characterization of advanced materials and nanomaterials; Civil Engineering and Sustainable Infrastructure, emphasizing resilient infrastructure, sustainable construction practices, and environmental considerations; and Recent Trends in Science and Engineering, providing a multidisciplinary platform for emerging research and technological innovations across diverse scientific and engineering domains.

The organizing committee was honored to welcome Prof. Emmanuel Bamfo-Agyei, Editor-in-Chief of the *African Journal of Applied Research* and Dean, School of Graduate Studies, Cape Coast Technical University, Ghana, as the Chief Guest of the conference. His inspiring address highlighted the importance of international collaboration, quality research, and innovation in engineering education and scientific advancement.

The conference was further enriched by keynote lectures delivered by distinguished experts, including Prof. Emmanuel Bamfo-Agyei, Cape Coast Technical University, Ghana, and Dr. Jaafar Q. Kadhim, College of Engineering, Mustansiriyah University, Iraq. Their presentations provided valuable insights into current research developments and emerging challenges in engineering and technology.

The inaugural session commenced with the Welcome Address delivered by Dr. Kishor Rambhad, Associate Professor and Head, Department of Mechanical Engineering, St. John College of Engineering and Management, Palghar, who also served as the Conference Chair. The conference was formally inaugurated through the Inaugural Address by Dr. Kamal Shah, Principal, St. John College of Engineering and Management, Palghar. The participants were also addressed by Dr. Manoj A. Kumbhalkar, President of the Research Association of Masters in Engineering (RAME), Pune, who highlighted the significance of research dissemination and international publication opportunities.

We express our special gratitude to EPJ Web of Conferences for providing the opportunity to publish the selected peer-reviewed papers presented at ICRAMEN 2026. The publication of these proceedings in EPJ Web of Conferences, a globally recognized and Scopus-indexed conference proceedings series,

significantly enhances the visibility and dissemination of the research contributions presented at the conference.

It is our sincere hope that the papers published in these proceedings will serve as a valuable reference for researchers, academicians, engineers, and industry professionals, and will inspire further innovations and advancements in Mechanical Engineering, Nanomaterials, Civil Engineering, and related interdisciplinary fields.

Editors

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Conference Chair & President

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